LISTING OF THE CLAIMS:

A listing and status of all claims 1-34 in the present application is provided below.

1. (Previously Presented) A method of providing a manufacturing facility for producing a radioactive material, the method comprising:

designing the manufacturing facility;

transporting the manufacturing facility to a site;

transporting a cyclotron to the site; and

enclosing the cyclotron inside the manufacturing facility.

2. (Previously Presented) The method of claim 1, further comprising the step of equipping the manufacturing facility with a laboratory room and a synthesis unit located in the laboratory room which is designed to receive a first radioactive material from the cyclotron and to produce a second radioactive material.

3. (Original) The method of claim 2, wherein the first radioactive material is a radioisotope and the second radioactive material is a radiopharmaceutical.

4. (Original) The method of claim 2, wherein the synthesis unit receives ^{18}F- from the cyclotron and produces 2-[^{18}F]-fluoro-2-deoxyglucose.

5. (Original) The method of claim 2, wherein the second radioactive material is adapted for use in a Positron Emission Tomography scanner or a Single Photon Emission Computed Tomography scanner.

6. (Previously Presented) The method of claim 2, further comprising the step of equipping the manufacturing facility with a packaging room to label one or more vials containing the second radioactive material prior to transporting the manufacturing facility to the site.

7. (Original) The method of claim 1, further comprising the step of equipping the manufacturing facility with radiation shielding prior to transporting the manufacturing facility to shield radiation produced by the cyclotron.

8. (Original) The method of claim 1, further comprising the step of installing radiation shielding in walls of the manufacturing facility after the manufacturing facility has been transported to the site.

9. (Previously Presented) The method of claim 6, further comprising the step of equipping the manufacturing facility with quality control equipment to measure a quality of the second radioactive material prior to transporting the manufacturing facility to the site.

10. (Original) The method of claim 9, further comprising the step of equipping the manufacturing facility with radiopharmaceutical packaging equipment prior to transporting the manufacturing facility to the site.

11. (Previously Presented) The method of claim 1, further comprising the step of equipping the manufacturing facility with a communications port for remote monitoring the manufacturing facility prior to transporting the manufacturing facility to the site, the communications port being connected to at least one sensor on the cyclotron.

12. (Original) The method of claim 3, wherein the manufacturing facility is designed to satisfy all legal and regulatory requirements of the jurisdiction in which the site is located.

13. (Withdrawn) A method comprising the steps of:

receiving a manufacturing facility at a site, the manufacturing facility being substantially equipped for producing a radioactive material, except that the manufacturing facility lacks a cyclotron;

receiving a cyclotron at the site;

enclosing the cyclotron within the manufacturing facility; and

allowing the cyclotron to be removed from the manufacturing facility.

14. (Withdrawn) The method of claim 13, further comprising the step of allowing the manufacturing facility to be removed from the site.

15. (Withdrawn) The method of claim 13, further comprising the step of reselling at least one of the cyclotron and the manufacturing facility.

16. (Withdrawn) The method of claim 13, wherein the manufacturing facility, except for lacking a cyclotron during transport, is substantially equipped during transport to produce and package a radiopharmaceutical.

17. (Withdrawn) The method of claim 16, wherein the manufacturing facility is designed to satisfy all legal and regulatory requirements of the jurisdiction in which the site is located.

18. (Withdrawn) The method of claim 16, wherein the manufacturing facility is designed to satisfy all legal and regulatory requirements of the state and federal governments of the United States.

19. (Withdrawn) A method comprising the step of leasing a transportable manufacturing facility for manufacturing at least one radiopharmaceutical.

20. (Withdrawn) A manufacturing facility comprising:

a building structure which encloses working space of the manufacturing facility, the building structure being designed to house a cyclotron and to be transportable by truck or rail to a destination site, wherein the manufacturing facility, except for lacking a cyclotron during transport, is substantially equipped during transport to produce and package a radiopharmaceutical.

21. (Withdrawn) The manufacturing facility of claim 20, wherein the building structure is designed to house a vertically oriented cyclotron.

22. (Withdrawn) The manufacturing facility of claim 20, wherein the building structure is designed to house a horizontally oriented cyclotron.

23. (Withdrawn) The manufacturing facility of claim 21, wherein the manufacturing facility comprises a synthesis unit which receives a radioisotope from the cyclotron and which produces the radiopharmaceutical.

24. (Withdrawn) The manufacturing facility of claim 21, wherein the manufacturing facility has an outside width of less than or equal to fourteen feet.

25. (Withdrawn) The manufacturing facility of claim 23, wherein the radiopharmaceutical is adapted for use in a Positron Emission Tomography scanner.

26. (Withdrawn) The manufacturing facility of claim 23, wherein the radiopharmaceutical is adapted for use in a Single Photon Emission Computed Tomography scanner.

27. (Withdrawn) The manufacturing facility of claim 23, wherein the manufacturing facility comprises a communications port, quality control equipment, and a packaging room.

28. (Withdrawn) The manufacturing facility of claim 20, wherein the manufacturing facility is designed to satisfy all legal and regulatory requirements of the jurisdiction in which the site is located.

29. (Previously Presented) The method of claim 2, further comprising the step of equipping the manufacturing facility with a clean room for dispensing the second radioactive material into one or more containers prior to transporting the manufacturing facility to the site.

30. (Previously Presented) A method of providing a manufacturing facility for producing a radiopharmaceutical, the method comprising:

designing the manufacturing facility to receive a cyclotron;

equipping the manufacturing facility with a synthesis unit and a packaging area, wherein the packaging area allows labeling of containers containing the radiopharmaceutical and entering of records of production and delivery of the pharmaceutical;

transporting the manufacturing facility to a site;

transporting the cyclotron to the site; and

enclosing the cyclotron inside the manufacturing facility, wherein the manufacturing facility is designed to satisfy substantially all legal and regulatory requirements of the jurisdiction in which the site is located.

31. (Previously Presented) The method of claim 30, further comprising the step of equipping the manufacturing facility with a laboratory room to receive the synthesis unit which is designed to receive a first radioactive material from the cyclotron and to produce the radiopharmaceutical.

32. (Previously Presented) The method of claim 30, further comprising the step of equipping the manufacturing facility with quality control equipment to measure a quality of the radiopharmaceutical prior to transporting the manufacturing facility to the site.

33. (Previously Presented) The method of claim 30, further comprising the step of equipping the manufacturing facility with radiopharmaceutical packaging equipment prior to transporting the manufacturing facility to the site.

34. (Previously Presented) The method of claim 30, further comprising the step of equipping the manufacturing facility with a clean room for dispensing the radiopharmaceutical into one or more containers prior to transporting the manufacturing facility to the site.